

**RADIO SCIENCE SERIAL
SUSTAINABLE DEVELOPMENT
LIFE MUST GO ON- LIFE JAI THAKI BOLE LAGE
'SMALL IS BEAUTIFUL'-CHHOTO TU SUNDOOR ASE
EPISODE - 03**

Aji laga episode, small is beautiful, mane... chhoto tu sundoor ase, sustainability & industrial Revolution topic ani ase. Etu laga Episode te ki huni pabo koile, 18th century te, hoi kena thaka industrial revolution thaka ke loi sai kena, aji kali laga industries khan kinika ase, etu huni pabo. Manu jiman u - thi bo, lagea bi uthi ja he, akobi bishi bishi bana ula bole ekta te rakhi di she. Kintu , etu he, ekdom beya para, hawa - paani - environment ke choi di ase. Listeners khan, e - episode, apunar suru para huni jai le, manuhar khan ki ki lagea pai jabo karone, mane pai thaki bo nimite, industries khan kinika kuri kena di ase etu huni bo. Innovation - bhabana kuri kena noutun bana u - la aro dimak chulea, aro noutun bhabana, cilage nishina khan bi huni pabo. Toh...listeners homoi na phelai kena, small is beautiful, sustainability & Industrial Revolution topic, dramatize te hunea suru kuri bo.

SFX: Workers shouting in T.V Pelting Stones.

Nahobo! Nahobo! Misa - mishi kotha para nahobo! Nahobo! Amar khan mangea, pura kuri dibi!... Worker's Federation Zindabad!

Grandma - (Inside the room) Bahar te ki hoi ase? Kaun khan eman hala kuri ase?
(Calls out) Benji!!

Benji - Bahar te nahoi ho, grandma, television te ase.

Grandma - Oh! ami bhabi she...

Dad - Benji, T.V awaaz komti kuri bi. Apunar grandma ke dikdar di ase.

Benji - Achha baba.

SFX: Volume lowers

Baba, etu ki hoi ase? Manu khan kile eman gusa hoi ase? Pathor bi phelai.

Dad - Etu ke koi 'strike'

Erali - Hoi, ami jani ase. Aji kali, hodai din nishina etu huni thake.

Benji - Erali, manu kotha kurea homoi te, majot nahi thaki bi.

Dad - Benji, enika kotha nakuri bi. Apunar bhoini ase. Tar logot kara para kotha nakobo lage.

Benji - Baba maaf. Hoile bi, kile, etu manu khan strike kuri ase.

Erali - Hoi, ami bi etu jani bo mon ase.

Dad - Duijon, eman jani bole mon hoile, ami koi dibo. Tar khan kile strike kuri ase koile mane, tar khan factory te kam kuri bole mon nai.

Erali - Baba, hoile bi kile, tar khan kuri bole mon nai?

Dad - Kile mane, tar khan lagea kisoman thakea nimite ase. Tar khan mangea, factory malik para nadea ba, pu - ra kuri na dile, tar khan kam te naja bo.

Benji - Tar khan ki mangi ase baba?

Dad - Tar khan laga tangkha uthai dibi koi ase.

Erali - Tate eku beya nai toh! factory malik para uthai dile hoi she nahoi?

Dad - Erali, asani, chhoto kotha nahoi dae. Alak kotha bi bishi ase. Etu upor te sopse jaruri tu social kotha bi ase.

Benji - Baba ki koi ase, ami buji napai.

Erali - Hoi baba, Benji koa tu, hosa ase, ami bi nabuje.

Dad - Ummm... achha! ami, duijon bhal para buji pabo nimite, koi dibo. Manu kaun hoile bi, kile factory nahoi le ba industry khan suru kure? Huh?

Benji - Taka - poisa, business nimite.

Dad - Hoi, thik koi she. Aro business tu laap pabo nimite ase. Hoi na nahoi?

Benji - Hoi

Dad - Toh... factory malik tu, ki - ki bana te, laap upor te akobi laap pabo mon hoi. Tar ki banai kena laap pai ase, etu arobi bishi- bishi bana bole mon hoi. Toh... tar enika kuri bo mon ase koile, kam kurea manu khan ke khushi -khushi tar chola bole kitea ba suru kuri jai.

Benji - Manu khan ke exploit kure?

Dad - Hoi, tangkha komti te, malik he, kam kurea khan ke, tar khan namani le bi kuri bole dea. Etu ekela nahoi kena, chhuti din bi natha ki kena, kam kuri bole homoi upor te kuri bole dea. Bishi ase dae! kaun nuba din te tu... malik para, a - sol nium te najai. Mane, kam kurea khan justice napai.

Benji - Hmmm...

Dad - Tate para, kam kurea khan, malik khan laga kotha namanea hoi jai. Kam kurea khan bi manu he ase. Nijor ghor aro parivaar khan ke sabole lage.

Erali - Hoi baba, apunar thik koi she.

Dad - Hoi le bi nah Erali, (R) kitea ba tu, kam kurea khan mangea bi bishi, aro thik nahoi.

Benji - Kinika baba.

Dad - Kinika ase koile, worker's union laga leaders khan, kam kurea - Workers khan ke ulta kotha koi dibo aro tar khan ke jaborjosh agitation kuri bole hikai dea.

Erali - Ayah baba, etu kotha tu alop jhamala ase.

Dad - Hoi toh, dikdar ekta ase. Etu tu social problem ase. Manu - manu majot dikdar ula ase.

Benji - Etu kotha tu ene khotom naho bo nah baba? khotom he nahobo. Ekjon -ekjon majot jagara hoi thaki bo aro, ses te industry bon he hoi jabo.

Dad - (laughs) Benji enika kut hobo. Amar khan desh te, industry bishi ase, aro bishi bhal para chuli ase dae.

Erali - Baba, duniya te, industry khan kitea u - la suru hoi she?

Dad - Jani bo mon ase?

Erali - Hoi baba.

Dad - Toh, amar khan, 18th century phele jabile lage.

Erali - (in shock) 18th century?

Dad - Hoi, 18th century. Saal 1763 te, Scottish mechanic James Watt ke, Newcomen Steam Engine model repair kuri bole di sele. Tar ki dikhi she koile, thik para nabana aro komjori dikhi paishe. Aro kisoman jaga bar-bar banai-banai kena chuli bole dishe.

SFX: Flash back music along with an old man with European accent.

James Watt - I still remember those days. It was mid 1700s. I was just 12 years old... a school boy. I was in the kitchen with my aunt. The water was boiling in tea kettle. The water was boiling so hard that the lid of the kettle began to jump up and down. **(Give appropriate SFX)**

I was staring at the kettle surprisingly. I was too fascinated with the kettle to stop. When I held the lid down tightly, the powerful steam escaped from the kettle's spout. After removing my hand from the lid, it started to bounce again. I learned about the power of steam when i was a kid and later, put that experience to good use.

-CHANGE OVER MUSIC-

Dad - Toh... James Watt para, eku tel nacholai kena, steam engine para ekdom dakot thaka ekta bana u - lai dishe.

Benji - Kiman bi bhal.

Dad - Hoi. Steam engine bhal akobi anea nimite, England te, hiki bole laga ekta ani di she. A - sol ke, Industrial Revolution suru hoa tu, 18th century, 2nd half suru phele etu noutun bhabana para bana khan logot bi mile.

Erali - Industrial Revolution?

Dad - Hoi. Aji kali apunar khan IT sector lok pa nishina khan.

Benji - Hoile bi, etu a - go te, industry khan thaka he nai, nahoi?

Dad - Bishi bhak saman bana u - la khan, industrialized desh te manuhar khan aji kali chola tu, manu haat para he bana aro kitea ba robot khan, machine te power chuli kena banai. Poihila- poihiila ancient aro medieval homoi te manuhar khan enika bana saman tu nai. Industrial Revolution suru na hoa a - got, ki ki bana tu, nijor ghor te he, haat te saman ba dorkar machines khan cholai kena banai thaki she. Tar khan, ekdom asani saman bana bole bi, homoi bishi lagi thaki she. Kam te dakat dea tu, tar khan nijor gao, aro juntu khan para he hoi. Industrial Revolution koa laga naam tu hoile, manuhar khan laga life, machines khan para botli ani dea aro ki- ki bana bole tarika noutun u - la ke koi.

Grandma - Amar khan u - tu homoi khan te, nijor haat para he kapra khan banai thaki she. Machine khan ahi jai she,... sop botli hoi jai she.

Dad - Hoi.

Benji - Hoile bi baba, u - tu somoi te, enika botli ahea upor te, kaun bi namanea, enika thaka nai?

Dad - (**laughs**) bhal sawal hudi she Benji. Industrial Revolution upor te, luddites khan bishi mana kuri she.

Erali - Luddites ? Mane ?

Dad - Era, luddite koa tu hoile, technology phele botli hoi ja, namanea manu ke koi dea. 19th century suru phele, English workers group, jun khan khushi pa nai, khushi napa dikha bo nimite, factory khan attack kuri kena, machine khan bhangai dishe. Yate, Ned Ludd para a - ge kuri kena, group khan, etu kam khan kuri she.

Erali - (**laughs**) huni bole bhal hoi ase.

Dad - Grandma para koa nishina, kapra bana industry tu, ekdom a - lak para phot industrialize hoi she. England te, Sir Richard Arkwright para spinning machine banai dea tu he, industrial Revolution u - thi bole di she naki, etu bi bhabe. Industrialization ahi kena, machinery a - lak a - lak , factories aro saman bishi bishi bana bole pari she.

Benji - Industrialization para duniya ke botli kuri di she hola nah baba?

Dad - Hoitoh Benji. Industrial Revolution he, history te, dagor ekta botli ani di she. Kiba nahoi le kiba ekta phele para, hodai din laga life ke choi di she. Industrial Revolution he, akobi factory laga volume ba kisoman a - lak a - lak ani di she. Mane, majot aro thaka manu khan ke a - lak a - lak para loi kena, bishi bhak manu karone, tar khan thaka hisap phele bi u - thai she.

Benji - Oh! etu bhal ase dae!

Dad - Hoile bi nah Benji! a - lak phele laga khisa bi ase dae!

Benji - Mane?

Dad - Ami majot aro thaka manu koi she nah? (**R**) yate, duk - dhukea aro kam kurea khan ke napahuri bi dae!

Benji - Oh hoitoh!

Dad - Factories khan te, pusna u - lai kena kam kurea khan tu, tangkha komti aro kam kurea laga nuim bi bhal thaka nai. Kam eman najanea khan tu, tar khan ke, kitea hatai di kena, pa - ra manu ke rakhi bo, etu bhabana para mon duk. Industrialization mane, kisoman kamjari khan tu, machine para botli kuri di bo etu ase dae!

Grandma - Hoi! bishi kam kurea manu, kapra bana manu khan, poisa kamai kena thaka khan, eku kam nakuri kena thaki jai she. Tar khan bi kha bo lage, toh... naparea, nakuri sa laga kam kuri bole lagai jai she.

Dad - Enika hoi kena, town industrialized jaga khan tu ki hoi she koile, bahar para, kam kuri bole manu ahi- ahi kena, ghor bishi, moila - letra, aro yate para bimar u - lai ja khan ke, sabo le naparea hoi jai she.

Erali - Aya, nahobo! eman tak! etu business suru nakurea a - got, James Watt aro company khan, bhal para bhabana kuri le bhal thaki sele...

Dad - (**laughing**) James Watt aro alak scientist khan laga golti nahoi dae Erali. (**laughs**) Industrial revolution aro industry khan thaki bole jaruri ase.

Erali- Kile?

Dad- Population bishi u-thi ja nimite ase.

Benji- Population?

Dad- Hoi. Ami u-thuni koa nishina, manu jiman u-thi bo, manu lagea bi bishi hoi jabo.

Benji- Aro, jiman lagi bo, amar khan bana pheli bi, bishi- bishi bana bole lage.

Dad- Etu he toh Benji! khali haat aro traditional niium chola para tu, bana u-la laga rate tu, lagea tak te napa bo. Etu karone, machines aro ki- ki khan jaruri ase.

Grandma- Etu tu ase, kintu machine para bana laga saman khan tu, haat bhal aro janea manu para bana nishina nahoi.

Benji- Mane?

Grandma- Aarey...! gas para banai kena tu khai, hoi le bi, jui para banai kena kha he meetha ase. Enika he ase dae!

Dad- (**Laughs**)Etu bi thik he ase.

Erali- Baba etu tu thik nai dae!

Dad?

Erali- Apunar tu, duita side para koi (Dad laughs)Industries khan lage enika koi she aro, etea tu, koi ase....

Dad- Amar chukuri, yate nah(**R**) kaun hoi le bi jani bole ekta ase dae! Balance! manu bishi- bishi hoi ja hisap te, lagea bi u-thi ase dae! Amar khan gadget nathaki le, napari bo nishina ase. Hodai nishina, kiba noutun lage. Etu karone Industrialization ekdom u-thi ase aro, jai ja alop decades te, amar khan kisoman dagor dikdari bi lok pai ase.

Erali- Kinika dagor dikdari baba?

Ekta tu ase, hawa- paani sapha nahoa aro, dusra tu ase, prakiti te pa khan bishi choi dea tu ase.

Grandma- Hoi hosa ase. Modernization he amar khan ke, khuri jula para gas cylinder chola te modot kuri she. Etu he, ghor bitor te moila- pollution hoa ke namai di she. Hoi le bi, factories khan nimite, ghor bahar khan sapha nahoi.

Dad- Aro bishi bhoi bi ase. Jungle para anea julai kena hawa ke moila kuri dea, bishi bhak manu khan, enika upor te, tar khan noutun para laap pa logot nami le enika te bi loi.

Grandma- Esor para tar khan ke bless kuri bi.

Dad- (Laughing)Esor para bi bacha bole napari bo dae! Kile mane, amar khan laga Earth tu, pollution beya te he bohi jai she.

Benji- Aah hoi! hawa letra, paani letra, mati letra.....ami pu-ri she.

Dad- Letra aro phela bole laga saman khan kinika kuri dibo lage, etu laga kanoon khan aro nium khan kaun hoi le bi, bhal para hiki kena chola bole lage. Enika hoi le he amar kha, pollution te duk pa tu komti kuri bole pare.

Grandma- Hoi, etu tu hosa ase.

Dad- Pollution upor te, aro bi dusra beya bi ase. Industrialization ! kam kurea khan nimite ghor, factories logote, noutun building khan bana, aro, ja- aha nimite ki- ki khan, noutun raasta aro rail raasta khan sop karone mati cholai dea te bi, bishi botli ani dishe. Industrial a-ge jabo karone, country jaga khan beya kuri dishe, aro, amar khan laga food production bi bishi choi di bole ase.

Benji- Etu tu naho bo!

Dad- Kisoman social issue- kotha khan bi ase dae. kotha- kotha ek jon manu, factory khuli she koile, machine khan kini bole karone, poisa bishi lage. Jun khan chuli kena laap pai ase, machine ako bi kini kena, ghor aro bi dagor bana bo aro supply bi bishi kini lo bole bhabe.

Benji- Etu mane, dhun khan dhun he hoi thaki bo aro, dhukea khan dhukea he hobo. Ami thik koi she nah Baba?

Dad- Apunar thik koi she Benji.

Erabi- Hoi le bi baba, apunar khali dikdari bishi thaka khan he koi ase. Etu khan thik kuri bole dusra eku raasta nai?

Dad- Era, sop dikdari te, ji hoi le bi khuli di bole raasta thake dae! Ekdom mokos cholai kena bhabana lobole lage. Saman bana nahoi le ba, kinika banai ase, etu te, innovation nishina tu lage.

Benji- Mane baba, conventional nium para amar khan electricity chola para bi solar energy he chola bole lage koi ase nah!

Dad- Hoi. Etu tu bi, ekta ase. Solar energy chola he, electricity bishi cholai ja ke komti kuri di bo.

Grandma- Load shedding hoi thaka bi, komti hobo.

Dad- Thik koi she. Aro, solar energy chola nium bi, fossil fuel chola ke komti kuri bo, aro, hawa- paani letra kuri dea bi bishi namai di bo. Prakiti te ki- ki pa khan - fossil fuels nishina khan tu, manu khan, income pa laga ase koi kena, u- thai thake. A-sol ke, etu khan tu capital hisap te amar khan bhabi bo lage. Kile mane, renewable nahoi-bana bole napare, aro harai jabo pare. Technology bhal cholai she koile, letra komti aro, power lagea bi komti te, saman ba anach khan te modot kuri bo.

Benji- Amar laga teacher para koa tu hoi le, carbon footprint aro, green house te gas u-la kotha bishi koi u- lai ase koi she.

Dad- Hoitoh Benji. Amar khan dhunga beya-carbon ke komti kuri bole lage. Duniya te sop desh aro, amar khan bi dhunga beya- carbon u-la ke kinika kuri le komti hobo etu bishi bhabana kuri ase dae! Yate, a-lak - dusra technologies khan bi chola tu cholai ase. Etu he hawa- paani moila kurea ke, komti tu kuri dibo. Hoi le bi, manuhar khan para ki- ki phele para beya dhunga u-la bole dea ke sabo nimite, ako bi a-lak raasta ekta chola bole lagi ase.

Benji- Ki a-lak raasta baba?

Dad- Benji apunar 'Cilage' koa tu huni sai she?

Benji- Cilage.....nai, baba huni sa nai. Aji he huni ase.

Dad- Achha! ami bujai di bo. Cilage mane- bosti te city thaka nishina ke koi dae.

Erali- Wow! Kinika laga idea bi ase.

Dad- Erali, etu tu khali idea laga kotha nahoi dae! Cilage koa bhabana tu, renowned scientist Dr. Anil Kakodkar para bhabi kena chulea laga ase. Tar hisap te, bosti te ki- ki lagea sop tu, bosti te he pabo lage, aro, hoa nai, nahoi le ba napare koile, u-sor- u-sor bosti khan sop mili kena, ek jon- ek jon bi ki lage ase, etu ke sai dibo lage koi she.

Grandma- Etu tu bhal ase. A- sol ke Mahatma Gandhi para amar khan ke ki koi she koi le, bosti para city te ja para, bosti te he ki tu thaki ase, etu ke bana bo lage koi she.

Dad- India te bosti para, manu thousand, thousand entrepreneurs banai loi kena ase. Ami mobile te bi movie clip ase. Sabo mon ase?

Both Kids- Hoi!

Dad- Achha! ami dikhai di bo. (**takes out mobile**) Rukhi bi dae! Hmmm.....Aah ! etu ase.

SFX: Music piece.

Narrator- Etu khisa tu, Mansukhbhai Prajapati laga ase. Tar tu, hodai chouka te chola bole laga saman, mati para alak- alak banai thaka manu ase. Tar water filters, refrigerators, hot plates, cooker, non- stick tava aro kisim alak- alak khan banai.

Grandma- Wah! kiman bi bhal!

Narrator- Tar ghor manu khan, taka- poisa te bishi duk ase. Pottery Unit te, tar kam kurea bitor te, bishi hikea nimite, tar nijor laga enterprise suru kuri bole, bishi mon thaki she. Nijor laga factory suru kuri bole nimite, dhar dea manu logot para, tar 30,000 loan loi she. Dusra potters khan logot sai saile, Mansukhbhai tu, innovative ase. Toh..... tar nijor bhabana cholai kena, mati para, tar chouka te chola bole dikshi khan kisim- kisim bana u-lai dishe. Hoi! banai thaka bitor te tu, tar kuri sa aro kinika kuri bole lage, etu upor te bishi saal phelai she. Kintu tar alchi nahoa aro ki-ki bana bole idea thaka nimite, pari she aro, etea tu, tar laga saman khan a-lak- a-alak desh jaga te pathai ase. Tar para bana saman bishi bhak bi patented ase.

SFX: Music piece ends.

Benji- Boa.....baba tar kiman bi kuri bole pari she nah?

Dad- Benji (**R**)enika eg: aro bishi ase dae!

Benji- Hoi naki.

Dad- Hoitoh! Andhra Pradesh, Nalgonda district, Sharjipet bosti te, Chintakindi Mallesham ke loi sabi. Tar tu kapra bana manu ase. Chhoto bosti ekta te thaki le bi, Pochampalli silk sari bhal para bana bole pari ase. Enika sari bana bole tu, haat chola bole lage. Mane- bandea aro rang di kena loom te kisim- kisim pattern na bana a-got, su-ta tu, haat para banda- bandi kam kuri bole u-lai. Etu mane, ekta sari upor te, e-phele , tate phele nine thousand bar haat ja a-ha kuri bole kam ase. Bishi duk kam ase dae!

Erali- Enika hobo baba, apunar koa hisap te.

Dad- Hoitoh! duk kam ase. Etu kam tu, haat bishi hilea kam hoa nimate, haat khan bikha u-lai jai. Purana nium, mane- traditional machine ke akobi bhal bana u-lai di kena, maiki khan, ekdom duk para nijor haat cholai kena kapra bana ek-sau upor ke, aaram pabo dishe.

Erali- Bishi bhal ase.

Dad- Hoi, M. Nagarajan ke bi loi sabi. Tar tu, Tamil Nadu te Madurai para 40 km dur, Usilampatti bosti chhoto ekta te thake.

Benji- Tar para ki banai she baba?

Dad- Tar para, loson (**garlic**) chamara u-la bole machine banai she dae.

Benji- Wow!

Dad- Etu machine para, ek konta te, 200kilogram loson chamara sapha kuri dea.

Grandma- Hosa bi Wow ! ase. Loson chamara u-la bi asani tu nahoi.

Dad- Sopse bhal tu, machine te chamara u-lai dea pichot loson, kata- kati natha ke, mane- bhangi ja enika nai.

Grandma- Kiman bi bhal.

Dad- Etu ekela nahoi kena, tar para, lemon, amar khan limbu enika koi thake nah? (R) etu tenga ke kati bole bi machine bana u-lai di she. Ek minute te, 160 lemon kati bole pare dae. Tar manu bishi rakha bi nahoi. Paas jon manu thaka team para, ek - moina te, tinta lemon katea machine ba charta- paasta loson chamara chelea machine banai.

Erali- Baba, etu machine laga movie clip bi apunar mobile te ase na nai?

Dad- Ase toh ! ami dikhai dibo....kaun tu ase le.....Aah ! etu ase. Heh ! sabi!

SFX: Music Piece

Erali- Baaa....baba, etu tu bhal ase dae!

Benji- Hosa bi bhal ase. Amar khan desh te, enika nijor bhabana para saman bana bole parea manu thakea, ami najani kena thaki she. Etu bi bosti jaga khan te.

Dad- Amar khan desh, bosti jaga khan te, kuri bole parea manu bishi ase dae! Amar khan bisari jai kena chola bo lage. Mahatma Gandhi para ki koi she koile, bishi- bishi banai kena u-lai dea para, manu bishi para bana he lage koi she. Amar khan etu kotha mani bole pari le, industrialization upor te ki- ki kotha u-lai ja khan halka hobo.

Benji- Enika ase koi le, industry dagor- dagor khan bi eman na lagi bo. Amar khan laga prakiti te ki- ki pa khan, energy aro national wealth koa khan bi bachi bo. Ami thik loi she nah baba?

Dad- Hoi, apunar thik koi she Benji. Etu karone, chhoto tu sundoor ase koi dae.

Erali- Baba, apunar koa khan sop buji paishe. Hoi le bi, ami ekta sawal hudi bo mon ase.

Dad- Hudi bi.

Erali- Apunar, pollution, carbon, global warming, energy khan te duk pa khan , amar khan, nijor hoi le bi ki kuri bole lage?

Dad- Bhal ekta hudi she. Amar khan etea kinika thaki ase, etu botli kuri bole lage. Amar khan nijor karone n a bhabi kena, duniya te akobi ahi bole - jonom hobole manu khan karone bi bhabana kuri di bo lage.

Erali- Mane?

Dad- Mane, electricity chola ke komti kuri bole lage. Electrical saman khan, na cholai koile, bon kuri bi. Parea tak komti chola bole sesta kuri bole lage.

Both kids- Hoi baba buji pai she.

THE END